

Remarks

This Application has been reviewed in light of the final Office Action mailed July 26, 2005. All pending Claims 1-20 were rejected in the Final Office Action. For the reasons discussed below, Applicants respectfully request reconsideration and allowance of all pending Claims 1-20.

Section 102 Rejections

Claims 1-20 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,452,915 issued to Jorgensen ("*Jorgensen*").

Claim 1 is allowable because *Jorgensen* does not disclose each and every one of these limitations. For example, *Jorgensen* does not disclose "receiving at an ingress point of a network a plurality of *packets each comprising a quality of service (QoS) class defined externally to the network.*" In the Final Office Action, the Examiner asserts that this limitation is disclosed at Column 50, lines 48-57. As indicated in this passage, the packet header field information of a packet associated with the disclosure of *Jorgensen* "can be used to identify IP flows and the QoS requirements of the IP flows." The passage goes on to list what fields may be included in the header – no of which are a QoS class. This passage simply indicates that the QoS requirements can be determined *from the* information in the header, not that the header *includes* QoS class as required by the claims.

This interpretation is consistent with the passage previously cited by the Examiner as disclosing this limitation (Column 47, lines 52-62 of *Jorgensen*). This passage states the following:

During identification, it is determined whether a data packet of an incoming IP data flow is known to the system, i.e. is an "existing IP flow", or rather is the first data packet of a new IP data flow, based on fields in a packet header section. Identification can also include, e.g., determining the source of the packet in order to extrapolate the type of information in the packet payload.

During characterization, a new data packet (of a new IP data flow) previously unknown to the system *is characterized based on the packet header*

information to determine the QoS requirements for the IP data flow, and to identify the subscriber CPE station that will receive the IP data flow.

During classification, the new IP data flow is classified into a communications priority class. Classification can also include grouping together packets from different IP flows having similar characteristics into a single class. Example class groupings of IP flows 630 are illustrated as IP classes 810a-810g.

(emphasis added). As indicated by the italicized language, the system of *Jorgensen* does not receive packets that each include a QoS class defined externally to the network. Instead, the system receives packet and determines, once received, the QoS requirements for the packet based on information about the packet (not based on an externally defined QoS class), as described below. The packet (and other packets in the same data flow) can then be classified based on these determined QoS requirements into an *internal* priority class.

The process of receiving packets and characterizing the packets to determine the QoS requirements for each packet is described in greater detail in *Jorgensen* with respect to Figure 15A. This description first describes the identification of received packets as follows:

3. Identification

Packet header identification component 1502 identifies the IP flow received from data network 142 at data interface 320 based on the packet header.

An IP flow packet stream from data network 142, including packets from various IP flows (where each IP flow is associated with a single data "call") is received at packet header identification component 1502. . . .

For IP flows known to the system, so-called "existing IP flows," there are entries in a table 1526. . . . If so, then the IP flow is known to the system, and control passes to module 1530 of the packet characterization component 1504.

If not, meaning that the IP flow is a new IP data flow, then control passes to module 1524, where the packet header fields are analyzed. Module 1524 analyzes the packet header source field and determines from source application packet header data table 1528 the type of source application making the data call or transmitting the IP packet. . . .

Once the type source application has been determined by packet header information or by another means, such as direct application identification, then control passes from module 1524 to module 1532 of the packet characterization component 1504.

Column 60, line 19 – Column 61, line 1 (with portions omitted). Therefore, when the *Jorgensen* system encounters a packet from a new data flow, it analyzes the header source field of the packet and uses the source of the packet indicated in the header to look-up an application associated with the packet in a table. *Jorgensen* then goes on to describe the characterization and classification of the identified packets as follows:

4. Characterization

Packet characterization component 1504 characterizes new IP flows and passes them to packet classification component 1506 for classification.

...

For a new IP flow, control passes to module 1532 from module 1524 of the packet header identification component 1502. If in module 1524 it is determined that the IP flow is not known to the system, in module 1532 *the QoS requirements for the application are determined using the source application information identified in modules 1524 and 1528. Module 1532 performs this operation by looking up the QoS requirements for the identified source application in the QoS requirement table 1534. Different applications have different QoS requirements in order to provide an acceptable end-user experience.*

5. Classification

Packet classification component 1506 classifies the IP flow and passes it to IP flow presentation component 1508 for presentment.

...

For the new IP flow, control passes to module 1542 from module 1536 of the packet characterization component 1504. In module 1542 the packet is classified into a QoS class by performing a table lookup into IP flow QoS class table module 1544, where the types of QoS classes are stored depending on the QoS requirements for packets. Similar IP flows, (i.e., IP flows having similar QoS requirements) can be grouped together in module 1542.

Column 61, lines 4-29; Column 61, line 51 – Column 62, line 8 (emphasis added; with portions omitted). Therefore, using the source application information determined from the source address of the packet, the system looks up the QoS requirements for that particular application in a table. Finally, the packet is then classified into an internal QoS class based on QoS requirements that were determined by the table look-up.

Therefore, when a packet is received in *Jorgensen* system, it does not have a “quality of service (QoS) class *defined externally* to the network,” as recited in Claim 1. Instead, the *Jorgensen* system includes intelligence in the form of various tables to determine the QoS

requirements for that packet based on the application that sent the packet. The packet can then be classified into an *internal* QoS class and transmitted over the network of which the system is a part. There is no external QoS class that is used to determine how to classify the packet into one of these internal QoS classes.

Furthermore, because the inbound packets do not have an externally-defined QoS class, *Jorgensen* also cannot disclose combining packets having particular external QoS classes into a particular internal QoS class, as recited in the “combining” limitations of Claim 1. And more specifically, *Jorgensen* does not disclose “combining packets having a QoS class comprising *delay bound guarantees* and a *low drop priority* into a first internal QoS class,” “combining packets having a QoS class comprising a *flexible drop priority* and *no delay bound guarantees* into a second internal QoS class,” or “combining packets having a QoS class comprising *no delivery guarantees* into a third internal QoS class.” Since *Jorgensen* discloses no external QoS classes, it does not disclose that the particular types of external QoS classes recited in Claim 1 are combined into internal QoS classes.

This is even more apparent when considering dependent Claims 2-4 (and similar Claims 11-13). These dependent claims define very specific external QoS classes that are combined into specific internal QoS classes. For example, Claims 2 and 11 recite that packets having an externally defined “integrated services guaranteed service” QoS class and an externally defined “differentiated services expedited forwarding” QoS class are combined into an internal “guaranteed service class.” There is simply no disclosure in *Jorgensen* of these specific types of classes. Similarly, there is no disclosure in *Jorgensen* of the specific types of classes recited in Claims 3 and 12 and Claims 4 and 13. Furthermore, the Examiner has not provided any further explanation in the Final Office Action as to how these limitations are disclosed in *Jorgensen*.

For at least these reasons, Applicants submit that independent Claim 1 (as well as independent Claims 10, 19 and 20, which include similar limitations to those discussed above) and dependent Claims 2-4 and 11-13 are allowable over *Jorgensen*. Furthermore, the remaining claims that depend from Claims 1 and 10 are at least allowable as depending from

an allowable independent claim. Therefore, Applicants respectfully request reconsideration and allowance of Claims 1- 20.

CONCLUSION

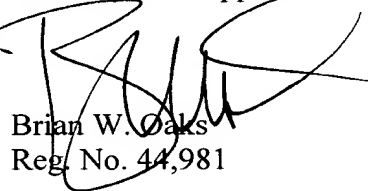
Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Brian W. Oaks, Attorney for Applicants, at the Examiner's convenience at (214) 953-6986.

No fee is believed to be due. However, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

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